

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims:

1. (currently amended) A stream server apparatus connected to a first network and a second network comprising:

wherein said first network connects said stream server apparatus and a first client apparatus and a firewall apparatus;

wherein said second network connects said stream server apparatus and a second client apparatus and said firewall apparatus,

wherein said stream server apparatus communicates via a first path that includes said first network and said first client apparatus, via a second path that includes said first network and said firewall apparatus and said second client apparatus, and via a third path that includes said second network and said second client apparatus;

~~wherein said stream apparatus is connected to a first client apparatus connected to said first network via a first path and a second client apparatus connected to said second network via a second path through said first network and a firewall apparatus and via a third path without a firewall apparatus,~~

a first interface which transmits and receives control request packets and data packets to and from said first client apparatus via the first path and being capable of transmitting and receiving control request packets to and from said second client apparatus via said second path;

a second interface which transmits and receives data packets to and from the second client apparatus via the third path;

a stream transport management module which specifies said first interface or said second interface in accordance with a network attribute of the first client apparatus and the second client apparatus; and specifies distribution protocol for each client apparatus based on a network to which said client apparatus is connected,

wherein, if the network to which said client apparatus is connected is said first network, bandwidth control is executed and said client apparatus is notified of a port number identifying a port through which communications are to be conducted.

wherein if the network to which said client apparatus is connected is said second network, bandwidth control is not executed and said client apparatus is notified of a dummy port number identifying a dummy port through which communications are not conducted;

a bandwidth management processing module which dynamically assigns a port and identifies the port by a port number and executes the bandwidth control based on a bandwidth control protocol for controlling a bandwidth of the stream data distribution; and

a process module which executes a communication process based on communication protocols related to said first and second client apparatuses via said first interface or the second interface.

2. (currently amended) The stream server apparatus according to claim 1, wherein said process module executes a stream data distribution

process based on a same communication protocol for both the relevant one of the client apparatuses belonging to the first network and the another relevant one of the client apparatuses belonging to the second network different from the first network said first client apparatus and said second client apparatus.

3. (original) The stream server apparatus according to claim 2, wherein said communication protocol uses a user datagram protocol.

4. (currently amended) The stream server apparatus according to claim 1, further comprising:
a control request reception unit-module which notifies an ID of the interface specified by said stream transport management module to the client apparatuses.

5. (currently amended) The stream server apparatus according to claim 1, wherein said stream transport management module specifies said first interface, if the communication protocol includes a reception process of a packet for said stream server apparatus from said second client apparatus via said second path-a client apparatus of the client apparatuses belongs to the second network different from the first network for which the firewall apparatus inhibits illegal accesses and if the communication protocol includes a reception process of a packet on a side of the stream server apparatus.

6. (currently amended) The stream server apparatus according to claim 1, wherein said stream transport management module specifies said

second interface, if the communication protocol does not include a reception process of a packet for said stream server apparatus from said second client apparatus via said second patha-client apparatus of the client apparatuses belongs to the second network different from the first network for which the firewall apparatus inhibits illegal accesses and if the communication protocol does not include a reception process of a packet on a side of the stream server apparatus.

7. (currently amended) The stream server apparatus according to claim 1, wherein said stream transport management module specifies said second interface, if the communication protocol is said stream data distributing protocol from said stream server apparatus for said second client apparatus via said third patha-client apparatus of the client apparatuses belongs to the second network different from the first network for which the firewall apparatus inhibits illegal accesses and if the communication protocol is a stream data distributing protocol.

8. (currently amended) The stream server apparatus according to claim 1, wherein said stream transport management module specifies said first interface, if the client apparatus belongs to the same network as said first network to which said stream server apparatus belongs a client apparatus of the client apparatuses belongs to the same network as a network to which the stream server apparatus belongs.

9. (currently amended) The stream server apparatus according to claim 4, wherein said control request reception unit module notifies said second client apparatus of the client apparatuses of the ID of the specified interface, said ID being not a local ID distinguishable by said first network the first network for which the firewall apparatus inhibits illegal accesses but a global ID capable of being translated into the local ID by a network relay apparatus en route to said second client apparatus via said second path and said third path a client apparatus requested stream data distribution.

Claim 10 (canceled).

11. (currently amended) A network attached storage system for managing a file system and distributing stream data stored in a storage unit to client apparatuses via networks, said network attached storage system being connected to a first network and a second network comprising:

a stream server apparatus for distributing the stream data,
wherein said first network connects said stream server apparatus and a first client apparatus and a firewall apparatus;
wherein said second network connects said stream server apparatus and a second client apparatus and said firewall apparatus,
wherein said stream server apparatus communicates via a first path that includes said first network and said first client apparatus, via a second path that includes said first network and said firewall apparatus and said second client apparatus, and via a third path that includes said second network and said second client apparatus;

wherein said network-attached storage system is connected to a first client apparatus connected to said first network via a first path and a second client apparatus connected to said second network via a second path through said first network and a firewall apparatus and via a third path without a firewall apparatus;

a first interface, coupled to said stream server apparatus, for transmitting and receiving control request packets and data packets to and from said first client apparatus via the first path and being capable of transmitting and receiving control request packets to and from said second client apparatus via said second path; and

a second interface, coupled to said stream server apparatus, for transmitting and receiving data packets to and from the second client apparatus via the third path; and

wherein said stream server apparatus comprises:

a stream transport management module which specifies said first interface or said second interface in accordance with a network attribute of the first client apparatus and the second client apparatus, specifies distribution protocol for each client apparatus based on a network to which said client apparatus is connected,

wherein, if the network to which said client apparatus is connected is said first network, bandwidth control is executed and said client apparatus is notified of a port number identifying a port through which communications are to be conducted,

wherein if the network to which said client apparatus is connected is said second network, bandwidth control is not executed and said client

apparatus is notified of a dummy port number identifying a dummy port through which communications are not conducted,

a bandwidth management processing module which dynamically assigns a port and identifies the port by a port number and executes the bandwidth control based on a bandwidth control protocol for controlling a bandwidth of the stream data distribution, and

a process module which executes for executing a communication process, via an interface identified in accordance with a network attribute and a type of a communication protocol of the client apparatus and based on communication protocols related to said first and second client apparatuses via said first interface or said second interface.

12. (currently amended) An apparatus including a storage medium with a program contained therein, the program executable by a stream server apparatus connected to a first network and a second network, wherein said first network connects said stream server apparatus and a first client apparatus and a firewall apparatus, wherein said second network connects said stream server apparatus and a second client apparatus and said firewall apparatus, wherein said stream server apparatus communicates via a first path that includes said first network and said first client apparatus, via a second path that includes said first network and said firewall apparatus and said second client apparatus, and via a third path that includes said second network and said second client apparatus, wherein said stream server apparatus is connected to a first client apparatus connected to said first network via a first path and a second client apparatus connected to said

~~second network via a second path through said first network and a firewall apparatus and via a third path without a firewall apparatus, wherein said stream server apparatus comprises comprising a first interface which transmits and receives receiving control request packets and data packets to and from said first client apparatus via the first path and being capable of transmitting and receiving control request packets to and from said second client apparatus via said second path, and a second interface which transmits and receives data packets to and from the second client apparatus via the third path, said second interface being connected to a wide area network, said program when executed causing the stream server apparatus to perform:~~

~~a stream transport management step of identifying said first interface or said second interface in accordance with a network attribute of the first client apparatus and the second client apparatus and specifying a distribution protocol for each client apparatus based on a network to which said client apparatus is connected.~~

wherein, if the network to which said client apparatus is connected is said first network, bandwidth control is executed and said client apparatus is notified of a port number identifying a port through which communications are to be conducted,

wherein if the network to which said client apparatus is connected is said second network, bandwidth control is not executed and said client apparatus is notified of a dummy port number identifying a dummy port through which communications are not conducted,

a bandwidth management processing step of dynamically assigning a port and identifying the port by a port number, and executing the bandwidth

control based on a bandwidth control protocol for controlling a bandwidth of the stream data distribution; and

a step of executing a communication process based on the communication protocols related to said first and second client apparatuses via said first interface or said second interface.

13. (currently amended) A stream server apparatus connected to a first network and a second network, comprising:

wherein said first network connects said stream server apparatus and a first client apparatus and a firewall apparatus;

wherein said second network connects said stream server apparatus and a second client apparatus and said firewall apparatus,

wherein said stream server apparatus communicates via a first path that includes said first network and said first client apparatus, via a second path that includes said first network and said firewall apparatus and said second client apparatus, and via a third path that includes said second network and said second client apparatus;

~~wherein said stream server apparatus is connected to a first client apparatus connected to said first network via a first path and a second client apparatus connected to said second network via a second path through said first network and a firewall apparatus and via a third path without a firewall;~~

a first interface which transmits and receives control request packets and data packets to and from said first client apparatus via the first path and being capable of transmitting and receiving control request packets to and from said second client apparatus via said second path;

a second interface which transmits and receives data packets to and from the second client apparatus via the third path;

a stream transport management module which specifies said first interface or said second interface in accordance with a network attribute of the first client apparatus and the second client apparatus; and specifies distribution protocol for each client apparatus based on a network to which said client apparatus is connected.

wherein, if the network to which said client apparatus is connected is said first network, bandwidth control is executed and said client apparatus is notified of a port number identifying a port through which communications are to be conducted.

wherein if the network to which said client apparatus is connected is said second network, bandwidth control is not executed and said client apparatus is notified of a dummy port number identifying a dummy port through which communications are not conducted;

a bandwidth management processing module which dynamically assigns a port and identifies the port by a port number and executes the bandwidth control based on a bandwidth control protocol for controlling a bandwidth of the stream data distribution; and

a process module which executes a communication process based on the communication protocols related to said first and second client apparatuses via said first interface or said second interface

wherein said process module executes a stream data distribution process based on a user datagram protocol (UDP) as the same communication protocol both for the first and second client apparatuses.

14. (previously presented) The stream server apparatus according to claim 1, wherein said stream transport management module specifies the first or second interface in accordance with a network address of the first or second network received from the first or second client apparatus via the first or the second path.

Claim 15 (canceled).

16. (previously presented) The apparatus according to claim 12, wherein said stream transport management step comprises: a step of specifying the first or second interface in accordance with a network address of the first or second network received from the first or second client apparatus via the first or second path.

17. (previously presented) The stream server apparatus according to claim 13, wherein said stream transport management module specifies the first or second interface in accordance with a network address of the first or second network received from the first or second client apparatus via the first or second path.